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CONSERVATION NE

Department of Water Resources Division of Planning & Local Assistance Water Conservation Office

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Possible Compensation for Water-Wise **Farmers**

Pending legislation in the U.S. House of Representatives may allow for up to a 30-percent tax credit to farmers implementing water conservation plans on their farmlands. Supporters of H.R. 461 believe the tax credit will encourage the purchase of conservation equipment for farmlands and consequently decrease water use during irrigation application.

H.R. 461, also referred to as the Agricultural Water Conservation Act, would amend the 1986 Internal Revenue Code by allowing for an income tax credit of up to \$500 per acre to farmers who purchase and install agricultural water conservation systems. Representative Gary A. Condit of California, who introduced the bill in January, says that the cost of agricultural water conservation systems is often a major impediment for farmers, and he is confident that the tax credit will give them the assistance they need to participate in water conservation.

(continued on page 2)

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CIMIS data is useful in allocating, managing, and pricing landscape water-see "CIMIS Network News" on page 12.

CII 36th **Annual** Meeting

Mark your calendar for the only conference in California that provides you with the latest developments in irrigation including technical, scientific, legal, and political subjects—all at one stop!

The 36th annual meeting of the California Irrigation Institute, Inc. "Irrigation in California—what is its future?" will be held February 3-4, 1998 at the Holiday Inn in Fresno, California.

The purpose of this year's conference is to educate those within and outside of the irrigation industry about all facets of irrigation in California.

General sessions will be on the Future of Irrigation in California. Breakout sessions include Advances in Irrigation Systems, Advances in Irrigation

(continued on page 5)

Water Conservation News provides information on the latest developments in agricultural and urban water conservation programs. This is a free newsletter published quarterly by the California Department of Water Resources, Division of Planning and Local Assistance, Water Conservation Office.

For more information about DWR's water conservation programs, call Ed Craddock, Chief, Water Conservation Office, at (916) 327-1655; Greg Smith, Urban Water Conservation, at (916) 327-1619; or Baryohay Davidoff, Agricultural Water Conservation, at (916) 327-1788. Information is also available from any of the following DWR District staff:

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We welcome any comments, suggestions, and story ideas; please send them to:

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Possible Compensation for Water-Wise Farmers

(continued from page 1)

"While discussing water conservation methods with farmers in my district, I found cost was their overriding concern," said Condit. "I firmly believe most agricultural interests are genuinely concerned about conserving water, but cost has crippled the ability to implement conservation methods on farms."

Due to the high prices of water conservation equipment such as specialized sprinkler systems and drip irrigation systems, Condit and other supporters of the Act are confident that the tax credit will provide farmers with options.

"It is not a mandate for expensive water conservation systems nor does it require them to change their irrigation practice. I believe farmers will contribute to solving water supply problems when given the opportunity," said Condit.

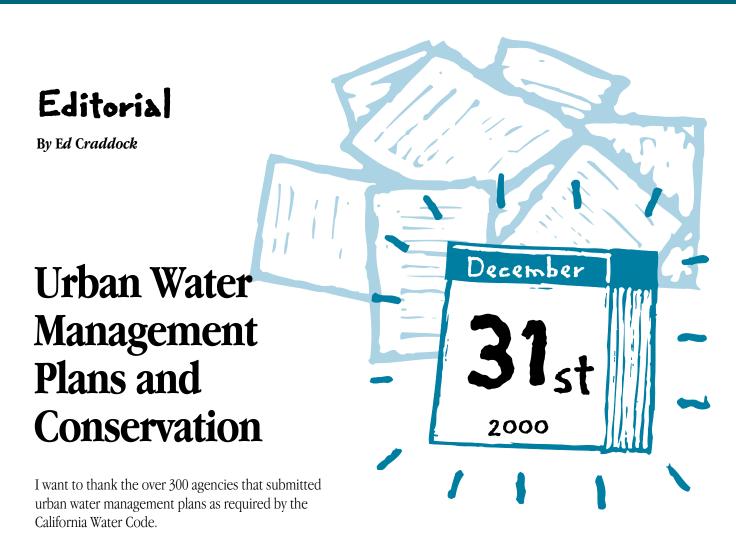
The Agricultural Water Conservation Act has been referred to the House Committee on Ways and Means. For up-to-date information on the status of the Act, consult the Thomas web page on federal legislation at

http://thomas.loc.gov/

(Quotes obtained from *The Cross Section*, June 1997)

Mission Statement of the Water Conservation Office

"To advance the efficient management and use of California's water resources in cooperation with other government agencies and the private sector through technical and financial assistance"



Our review of the 1995 plans was limited to requirements as stated in the law prior to January 1, 1996. The review evaluated whether the requirements were in the plan or not, and whether they were applicable. All of this information will give us a good base for development of the next plans due by December 31, 2000.

The 2000 plans are subject to a different set of requirements based on the changes to the law that became effective in January 1996. We have heard from many people in the water industry that it's time to form an ad-hoc group to develop the criteria with the water industry for reviewing the 2000 plans. In case CALFED requires certification of the plans, the review should be as thorough as possible and have industry support.

I will call for the formation of such an ad-hoc group this fall. A number of folks from the California Urban Water Conservation Council have already volunteered. We'll look to water planners, the environmental community, and others to complete the working group.

There is no question that good urban water management plans provide the foundation to implement Best Management Practices for urban water conservation.

Note: If you represent a water agency having over 3,000 connections, you should soon receive a letter from us thanking those of you who submitted plans—or reminding those of you who have not done so. We will also provide you with the schedule we anticipate for the plans due December 31, 2000. In addition, if you request, we will and offer specific feedback on your current plan or other assistance to help you prepare for the plans due in 2000.



Declared Safe by Expert Panel

"Ozone is very efficient in killing pathogens and spoilage organisms and its use by the food industry will be welcomed as another tool to ensure the production of safe and wholesome foods."

Until recently, the use of ozone in the U.S. food industry was extremely limited. However, a panel of expert scientists has recently studied ozone's effectiveness in food processing and declared it as generally recognized as safe (GRAS)—a major step toward commercial use of ozone in the U.S.

Ozone has been safely used for many decades in other countries as a sanitizer in food processing and water treatment. In fact, in some parts of Europe, such as France and Germany, ozone has been used as the primary sanitizer for public water systems.

Nevertheless, the U.S. GRAS classification was previously limited to the treatment of bottled water, and ozone was not permitted as a

disinfectant or sanitizer in food processing. The panel's stamp of approval may be enough to expand ozone use in the U.S.

"Ozone is very efficient in killing pathogens and spoilage organisms and its use by the food industry will be welcomed as another tool to ensure the production of safe and wholesome foods," said Jeff Barach, vice president of research and food science policy with the National Food Processors Association.

The panel also determined that ozone was far more powerful than chlorine—the most commonly used food processing disinfectant.

Testing proved that ozone was also effective in increasing the storage life of vegetables, fruits, and other

agricultural products. Furthermore, unlike other disinfectants, ozone doesn't remain in water for an extensive length of time; consequently, it can be considered a process rather than an additive, and safety concerns about human consumption are of minimal consideration.

The use of ozone in the food processing industry will also have water conservation benefits. Current Food and Drug Administration regulations require that potable water be used at meat packing plants for any process which involves water contact with the product. The GRAS classification of ozone means that ozone can be used to sanitize process water and make that water available for onsite reuse.

The Electric Power Research Institute requested the ozone study to clarify ozone's regulatory status and encourage the use of ozone in U.S. food processing. Under the direction of the Food and Drug Administration, a panel consisting of scientists from food science, ozone technology, and related fields spent a year evaluating and interpreting the history of ozone and its potential for future use.

The panel reviewed and researched ozone's historical uses, methods of production, efficacy in food processing, areas of applications, safety issues, and its impact on nutrients, ultimately confirming the effectiveness of ozone in the food processing industry and recommending its use in the U.S.

Although the extended GRAS classification is a significant stamp of approval

that it doesn't assure ozone's safe use. Especially in the U.S., where workers have little or no experience with applications of ozone to foods, experts assert that it is important to worker safety and the efficacy of the process that ozone installations and operation be carefully carried out according to prescribed guidelines.

For more information on ozone use, contact Christine Hopf-Lovette, EPRI, at (415) 855-2733; e-mail chopf@epri.com, or Barbara Klein, EPRI, at (415) 855-2413; e-mail bklein@epri.com.



CII 36th **Annual Meeting**

(continued from page 1)

Management, CALFED Update, Landscape Irrigation, and Efficient Water Management Planning. There will also be a computer workshop on how to use the California Irrigation Management Information System.

Register by January 22, 1998, and pay only \$120 (pay at the door \$150). Registration includes admission to all sessions, refreshments, the reception on Tuesday, and lunch on Wednesday. Watch for the December edition of

News. It will contain the full agenda, annual meeting registration form, meeting cost information, and hotel reservation form. In the meantime, make sure you schedule this event on your calendar.

Water Conservation

For more information, contact Lynda Dale Herren at the Division of Planning and Local Assistance, California Department of Water Resources, 1020 Ninth Street, Sacramento, California 95814; Phone: (916) 327-1654; e-mail lherren@water.ca.gov.



- has no toxic byproducts or potential health hazards
- is one of the most powerful disinfectants
- has been safely used in water treatment for decades
- is effective in sanitizing the surfaces of vegetables and fruits
- ▲ Las fewer deleterious health effects than chlorine treatment

(Quote obtained from Food Technology, "Use of Ozone for Food Processing," June 1997)

Water Conservation



Proposition 82 Water Conservation Construction Project Completed

The Palm Ranch Irrigation District, located in Los Angeles County, recently completed work on its Water Main Replacement Project. The Project, which involved furnishing and installing new pipe to replace an existing deteriorated water pipeline, was funded by a Proposition 82 water conservation construction loan administered by DWR. The total incurred cost, \$430,158, was over \$111,000 under budget. The Project is expected to save about 164.5 acrefeet of water per year. For more information contact David Rolph at 445-8259; e-mail **drolph@water.ca.gov**.

Fresno Faces a Meter Obstacle

The City of Fresno, facing a water meter requirement and \$46 million in federal water bills, has signed a binding agreement to pre-renew its contract with the U.S. Bureau of Reclamation for 60,000 acre feet of water. The water is currently used in spreading ponds to replenish Fresno's underground water supply. In the future, a portion of the water will be processed in the surface water treatment plant currently under development. Since metered water rates were banned in a 1992 city election, the City must persuade voters to reverse the meter vote to renew its contract—since the Central Valley Project Improvement Act requires water meters. If the City overcomes the obstacle, the \$46 million water bill will mean a 12-to-12.5 percent increase in water rates for most homeowners. For more information contact Dave Todd, City of Fresno, Water Conservation Supervisor, at (209) 498-4133.

Landscape Water Conservation

Hundreds of people have visited a new public garden at Cerritos Park East to study its water-saving plants for landscaping ideas. The \$20,000 garden was designed by Perry & Associates Landscape Architects in Claremont, California and consists of three dozen varieties of water-conserving plants. City spokeswoman Annie Luger claims that the new 2,500-square-foot garden is saving the City 50 percent of the water that was formerly used. City officials are hopeful that the garden will encourage and educate people to conserve water. For more information contact the Claremont Chamber of Commerce at (909) 624-1681.

Water Conservation Certification

Agreements have been reached to develop an industry-recognized, three-tier level water conservation training and certification program. Cosponsored by the American Water Works Association (Cal-Nevada Section), East Bay Municipal Utility District, DWR, and several other water agencies, the tiers will cover entry-level, journeyperson, and managerial responsibilities. The program was developed to uniformly train individuals in the water conservation field. See page 10 for specific training and testing dates. For more information contact Josie Barron, AWWA CA/NV Section Office, at (909) 920-1200; or Keith Watkins of the Water Conservation Office at (916) 327-1808; e-mail

kwatkins@water.ca.gov.



Engineers and Businessmen at Water Conservation Exhibit

The need for industrial water conservation was exhibited to 2,000 plant engineers visiting the Sacramento Plant Engineering & Maintenance show on July 23-24, 1997 at the Sacramento Convention Center. Water efficiency was also promoted to businesses at the Western Foodservice & Hospitality Expo in Los Angeles on August 16-18, 1997. The latest commercial, industrial, and institutional water conservation promotion, entitled the Northern California Plant Engineering and Maintenance Show, occurred on October 8 and 9 in Santa Clara, California. The Los Angeles Department of Water and Power and Metropolitan Water District of Southern California joined DWR in sponsoring the exhibit booth. For more information on upcoming events contact Charlie Pike at (916)327-1649; e-mail **cpike@water.ca.gov**.

Water Conservation Information Committee

About 70 people attended the second Water Conservation Information Committee meeting in Folsom, California on August 14, 1997. The Committee is cosponsored by DWR and the U.S. Bureau of Reclamation. This meeting was planned by USBR and focused on a "Water Conservation and Watershed Management" theme. The next biannual meeting will be hosted by the Water Conservation Office in February 1997 in cooperation with USBR and the National Irrigation Association. The theme will be "Irrigation Management and Technology in the Future." For more information, contact Ed Craddock at (916) 327-1655; e-mail **craddock@water.ca.gov**.

Upcoming Exhibit Opportunities

Exhibiting at trade shows is an excellent way to reach out directly to your commercial, industrial, and institutional customers. Below is a partial list of exhibit opportunities in California through the first half of 1998. Although exhibit space reservations are often made six months in advance, space can sometimes be obtained 30 days before an event. To share exhibit space with DWR during any of the following events contact Charlie Pike at (916) 327-1649, Holly Sheradin at (916) 227-7585, or David Inouye at (818) 543-4601, extension 295.

- November 5-6, 1997
 U.S./Mexico Plant Engineering and Maintenance Show
 San Diego, California
- March 11-12, 1998
 Central Valley Plant Engineering and Maintenance Show Modesto, California
- June 24-25, 1998 Western Plant Engineering and Maintenance Show Los Angeles, California
- July 22-23, 1998 Sacramento Plant Engineering and Maintenance Show Sacramento, California

Oregon Laundromat Gets a Make Over

Portland is now home to one of the first resource efficient laundromats in the country. The Posh Wash, formerly known as the Broadway Laundromat, was recently renovated with fifty Maytag resource efficient washing machines (REWMs) which are predicted to save thousands of dollars and a quarter of a million gallons of water per year.

The new machines save about 20 gallons of water per load—resulting in an annual water savings equivalent to one person's drinking water for a lifetime. These benefits, along with the prediction that the water and energy savings will translate into a savings of \$5,500 per year, are what encouraged Posh Wash owner, Harriette Fleming, to install the machines.

"I wanted to use these new washing machines because they cost so much less to operate," Fleming said. Although REWMs are roughly twice the cost of standard top-loading machines, Fleming is certain that the water and energy savings will save her money in the long run.

REWMs have been widely used in Europe, but it wasn't until recently that they've gained popularity in the U.S. Maytag introduced the new machines in May, and they are quickly gaining popularity. As an incentive to residential purchasers, many retailers are giving a \$130 rebate per machine.

Although this savings doesn't apply to commercial washers, the Oregon Office of Energy offers a 35-percent tax credit to purchasers of coin-operated machines. Fleming's renovation of the laundromat resulted in a \$5,740 tax credit.

For more information, contact Curt Nichols, Portland Energy Office, at (503) 823-7418, or Charlie Stephens, Oregon Office of Energy, at (800) 221-8035.

For general information about REWMs contact

Maytag at (515) 792-7000, or consult the Maytag home page at http://neptune.Maytag.com/home index.asp.

(Quote obtained from a June 1997 Portland Energy Office news release, Laundromat Installs Efficient Washing Machines)

Additional facts about REWMs

- REWMs save from 30 to 50 percent of water and from 50 to 70 percent of the energy of conventional machines.
- They save water because the clothes are tumbled in and out of a shallow pool of water, instead of being agitated by a motor in a tub filled with water as is the case with conventional machines.
- Because there's less water in the tub, less water needs to be keated. (Up to 90 percent of laundry energy is used to keat the wash water.)
- REWMs spin faster than traditional washers, so drying is quicker and dryer energy use is less.
- Clothes tend to last longer in REWMs because the cycle is gentler on them.

Summary of Water-Related Legislation



By promoting the use of recycled water, the State expects to add 1 million acre feet

of drinking water by 2010 to its supplies. AB 1522 defines the types of commercial and retail buildings that would qualify for dual plumbing systems that allow using recycled water. Included specifically are commercial, retail and office buildings, prisons, military barracks and dormitories, and some apartment buildings and hotels.

Status: Passed unanimously in both houses. Signed by Governor Pete Wilson. Takes effect on January 1, 1998.

♦ AB 1000 (Keeley) Clean Coastal Waters and Rivers Bond Act—

Would provide \$647 million of general obligation bond authority for the November 3, 1998 ballot to develop and enhance various programs along the coast and rivers.

Status: Assembly Committee on Appropriations

♦ AB 1180 (Battin) California Safe Drinking Water Bond Act of 1998—

Would authorize a general obligation bond ballot measure for \$100 million for the June 2, 1998 ballot for the safe drinking water program; require public water systems to demonstrate adequate financial capability for delivering potable drinking water; establish a Safe Drinking Water State Revolving fund; and authorize adoption of emergency regulations by the Department of Health Services.

Status: Assembly Committee on Appropriations

▲ AB 1464 (Strom-Martin) Use of Safe Drinking Water Bond Funds—

Would require the State Water Resources Control Board, with public participation, to prepare a list of targeted water bodies in coastal watersheds for possible project funding.

Status: Governor's Desk

♦ SB 543 (Costa) DWR Loans and Grants—

Would authorize loans from the 1984 Clean Water Bond Fund, the 1986 Water Conservation and Water Quality Bond fund, and the 1988 Water Conservation Fund for projects.

Status: Governor's Desk



• October 20, 1997 (Level 1 Testing) 10 a.m. to 1 p.m.

AWWA Water Conservation Certification Program

American Water Works Association

East Bay Municipal Utility District

Oakland, California

Class fee: \$225 (fee includes resource binder, lunches, and refreshments)

Testing fees: \$50 for members; \$65 for nonmembers. For more information call Josie Barron, AWWA, at (909) 930-1200.

—The first tier of this three-tier water conservation training program will address industry terminology and structure, water systems, units of measurement, codes and regulations, residential water saving hardware and measures, residential water survey methodology, and the concept of evaporation-transpiration (Eto).

♦ October 14-15, 1997 Water Education Committee Meeting

Department of Water Resources
Oroville Field Division

Olovine Field Division

Oroville, California

For more information call Carolyn Tucker, DWR Office of Water Education, at (916) 653-9892.

—This two-day meeting will include a tour of the Feather River Fish Hatchery to observe the fall run spawning operations and the Kelly Ridge Visitor Center. The October 15 agenda includes special presentations followed by a tour of Oroville Dam and Edward Hyatt Powerplant.

• October 22-23, 1997

The Western Nursery & Garden Expo

California Association of Nurserymen
The Sands Expo Center

Las Vegas, Nevada

Cost: Free if bought in advance; \$5 at the door For more information call Margo Jonsson at (800) 517-0391. —Mark your calendar to attend the second annual Western Nursery & Garden Expo. The event will last two days and cover many aspects of the gardening industry, including plants, hard goods, equipment, and gifts. The event will feature over 600 local, national, and international exhibitor booths; a national computer mart; and seminars sponsored by the California Association of Nurserymen and the American Association of Nurserymen (see below).

• October 22, 1997

The Western Nursery & Garden Expo Educational Seminars

California Association of Nurserymen and American Association of Nurserymen

The Sands Expo Center

Las Vegas, Nevada

Cost: Varies

For more information call Carol Hutchings, California Association of Nurserymen, at (916) 928-3900.

—Eight industry seminars will be offered at the second annual Western Nursery & Garden Expo. The Western Expo Professional Seminar Tracks will provide educational information for both retail and landscape professionals. Some of the seminars include retail nursery seminars, industry trends, and general landscape seminars.

• October 23-24, 1997

Western Ornamental Research Conference

California Association of Nurserymen

Harrah's Hotel and Casino

Las Vegas, Nevada

Cost: Registration costs vary

For more information call Carol Hutchings, California

Association of Nurserymen, at (916) 928-3900.

—This two-day event will bring together some of the top ornamental horticultural researchers to report on the latest findings for the industry. Topics include "Biological Control in Ornamentals," "Pest Scouting in Nurseries," "Ergonomics Update," and "Oleander Leaf Scorch and How Other Plants May be Affected."

November 13-15, 1997

California Groundwater Association 49th Annual Convention & Trade Show

Town & Country Hotel San Diego, California

Cost: Members \$120; nonmembers \$160; nonexhibit suppliers \$325

For more information call (707) 578-4408.

—This three-day convention for groundwater professionals will have several seminars as well as exhibits and product suppliers. Some of the seminars scheduled include "What's New in the Industry," "Ground Source Heat Pumps," "Horizontal Drilling," and "Computer Generated Pump Selection."

♦ November 18, 1997 Fifth Annual Fertilizer Research & Education Program Conference

Sacramento Convention Center Sacramento, California

Cost: \$35 before October 31; \$45 after October 31 For more information call (916) 653-5340

—This conference is for anyone in the agriculture industry who is interested in the environmentally safe and agronomically sound use of fertilizers. It will feature up-to-date research reports on many California crops; panel discussions on using precision agriculture in crop production; poster presentations and hands-on demonstrations; and updates on water quality activities.

♦ December 10, 1997 CUWCC Plenary Session

Municipal Water District of Orange County Fountain Valley, California

Cost: Free

For more information call (916) 552-5885.

—This is the California Urban Water Conservation Council meeting for all Urban Memorandum of Understanding signatories and interested parties.

♦ January 10, 1998 BAEER Fair 21—Call for Exhibitors

Marin Civic Center San Rafael, California

Cost: General admission fee is \$7; fees for exhibitors are

\$60 (nonprofit), \$90 (commercial), and \$90 (vehicle display).

For more information call Ken Hanley at (510) 657-4847. —This is the largest environmental education event designed specifically for the teaching community. Public and private school instructors, home-based educators, naturalists, administrators, and others are invited to attend this year's event. The deadline for exhibitor registration is November 15.

• February 3-4, 1998

"Irrigation in California—What is its Future?"

Holiday Inn Centre Plaza Fresno, California

Cost: \$120

For more information call (916) 366-9376.

—This is the 36th annual meeting of the California Irrigation Institute to educate those within and outside of the irrigation industry about all facets of irrigation in California. (See pages 1 and 5 for more details.)

• February 7-9, 1998

1998 AWWA Conservation Division Mid-Winter Meeting and Water Shortage Planning Workshop

Hyatt Regency Austin. Texas

For more information call Susan Miller at (303) 347-6181. —Workshops will include "Peaking Design," "Water Contingency Planning," and "Pricing Policy."

♦ August 3-7, 1998

International Conference on Water Resources Engineering

American Society of Civil Engineers Memphis, Tennessee

For more information call Anne Hoos, American Society of Civil Engineers, at (703) 295-6000.

—This Second International Conference on Water Resources Engineering will bring together several hundred engineering professionals to exchange information on important issues in water resources engineering.

♦ January 31-February 3, 1999 Conserv '99

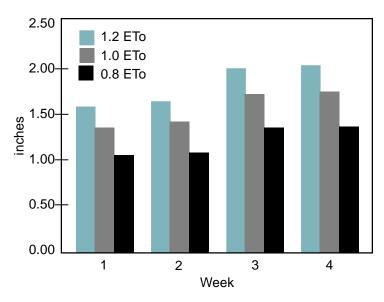
American Water Works Association Hyatt Regency Monterey

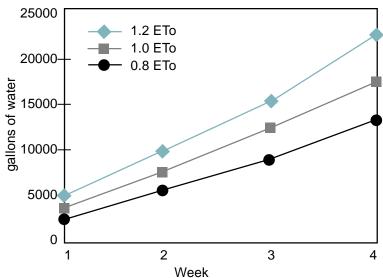
Monterey, California

For more information call Susan Miller at (303) 347-6181. —Mark your calendar for this premier water conference hosted by AWWA. Announcement and registration information will be available in October 1998.

Turf Water Use in Relation to Weekly ET_o for Escondido CIMIS Station June 1997

Cumulative Water Used on a 5,000-Square-Foot Lawn





Tracking CIMIS data on a weekly basis is necessary to equitably allocate and charge for excessive or conservative landscape water uses. In this example water users could move into different pricing tiers between weeks two and three solely because of the weather. Also, turf irrigators attaining 0.8 ETo would have applied less water than those applying 1.2 ETo in June 1997.

ETo is an estimate of water use of grass that provides an index of water use for all kinds of vegetables. ETo is estimated by weather stations that are part of the California Irrigation Management Information System (CIMIS).

CIMIS data is available free to the public. For more information on CIMIS, visit our web site at http://wwwdpla.water.ca.gov/cgi-bin/cimis/cimis/hq/main.pl, or contact DWR staff listed on the inside front cover of this newsletter.

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